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TAXONOMY AND DISTRIBUTION OF *DALEA WRIGHTII* (FABACEAE)

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ABSTRACT

Dalea wrightii A. Gray is treated as a widespread and variable species consisting of two infraspecific taxa: var. *wrightii* and var. *warnockii* (Tharp & Barkley) B.L. Turner. The former is a more western element occurring in southern Arizona, southern New Mexico, western trans-Pecos Texas, northeastern Sonora, Chihuahua, and western Coahuila. Var. *warnockii* is largely confined to the easternmost trans-Pecos Texas, eastern Coahuila, and closely adjacent Nuevo León, Mexico. The two taxa appear to intergrade in regions of near-contact, hence their treatment at varietal rank. Morphological characters that mark the taxa are discussed, and a map showing their distribution is provided.
KEY WORDS: *Dalea, D. wrightii*, Texas, New Mexico, Arizona, Mexico

Barneby (1977), in his masterful treatment of *Dalea* for North American, treated *D. wrightii* as monotypic, noting that the closely related *Dalea subulicola* T. Brandegee (including *Parosela warnockii* Tharp & Barkley) seemed unworthy of nomenclatural recognition and that the present author concurred with his taxonomy, which was so at the time (Turner 1959). Subsequently, however, in my Atlas of the Vascular Plants of Texas (Turner et al. 2003) I recognized *P. subulicola* as distinct and treated and mapped it as a valid taxon at varietal rank, using as the basionym the Texan eponymee (Barton Warnock) and authors Benjamin Tharp and Fred Barkley — *D. wrightii* var. *warnockii*. The present paper further documents that taxonomy.

DALEA WRIGHTII A. Gray, Pl. Wright. 1: 49. 1850. *Parosela wrightii* (A. Gray) Vail, Bull. Torrey Bot. Club 24: 16. 1897. **TYPE: USA. Texas**. Jeff Davis Co.: eastern part of county near Barilla Springs, Aug 1849, *C. Wright 134* (holotype: GH).

Barneby (1977) has given an excellent description of the species and this need not be repeated here. The following will help delimit the varieties concerned:

KEY TO VARIETIES

1. Leaflets mostly 2–3 times as long as wide, their apices mostly acute or rarely narrowly obtuse; western Coahuila and western Trans-Pecos, Texas, westward to Arizona and Sonora .... var. **wrightii**
1. Leaflets mostly 1–2 times as long as wide, their apices mostly obtuse; eastern trans-Pecos Texas, Coahuila, and western Nuevo León ..... var. **warnockii**

Var. WRIGHTII Fig. 1.

This is a relatively distinct taxon throughout its range, but occasional plants approach var. *warnockii*, especially in southeastern Chihuahua, across from the trans-Pecos region of Texas (e.g., *Stewart 612, Stewart 992,* TEX).

Dalea parrasana T. Brandegee superficially resembles *var. wrightii*, but the two taxa are readily distinguished by their floral features, these brought to the fore by Barneby (1977). *Dalea*

wrightii var. *warnockii* occurs with *D. parrasana* in the Parras region of southern Coahuila (the two taxa mounted on the same sheet [*Henrickson 6160*, TEX]). It is possible that the occasional hybrid between these might occur.

In short, *Dalea wrightii* var. *wrightii* and var. *warnockii* appear to be distinct regional taxa (Fig. 3), the former more western, the latter more eastern, with occasional signs of intergradation along regions of near-contact.

Var. WARNOCKII (Tharp & Barkley) B.L. Turner, Sida, Bot. Misc. 24: 7. 2003. *Parosela warnockii* Tharp & Barkley, Anales Esc. Nac. Ci. Biol. 4: 284. 1946. **TYPE: USA. Texas.** Pecos Co.: [between] Fort Stockton [and] Sheffield, 3 Jun 1940, *B.C. Tharp s.n.* (holotype: TEX). Fig. 2.
Dalea subulicola T. Brandegee, Univ. Calif. Publ. Bot. 4: 179. 1911

The most obvious difference of this variety from the typical taxon is that of leaf shape, as noted in the above key to varieties. Barneby also noted that in var. *warnockii*, the vestiture appears to be more nearly tomentose, which is so for most of the plants occurring in the USA and in much of Mexico. Nevertheless, seemingly intermediate plants may be found in southern Coahuila (e.g., 5 mi W of Saltillo along route 60, *Correll & Johnston 21391* [LL]; El Kelso, Ramos Arizpe, gypsum hillside, *Hinton et al. 25972* [TEX]). Whether such intermediates suggest past or current hybridization is moot.

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UNIVERSITY OF TEXAS HERBARIUM
cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
TEX
The University of Texas Herbarium (LL, TEX)
Dalea wrightii A. Gray
var. wrightii
Det.: B. L. Turner, 2003
The University of Texas Herbarium (LL, TEX)
Dalea wrightii A. Gray
Det: B. L. Turner, 15 Aug 1996
Chromosome number
determined as 2n=14
Turner & Fleming '57
HERBARIUM of THE UNIVERSITY OF TEXAS
1288
PLANTS OF Jeff Davis COUNTY, TEXAS
Dalea wrightii Gray
5 mi. s. of Ft. Davis; igneous soil.
Flowers yellow
DATE Aug. 26, 1953 NO. 53-513
COLL. B.L. Turner, B.C. Tharp and B.H. Warnock (3176)
University of Texas - Austin (LL, TEX)
00016261

Figure 1. *Dalea wrightii* var. *wrightii* (from near the type locality, Jeff Davis Co., Texas).

199558
TEX
0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
HOLOTYPE OF:
Parosela warnockii Tharp & Barkl. in An. Esc. Nac. Ci. Biol. 4: 284. 1946.
R. Barneby, 1972
UNIVERSITY OF TEXAS
HERBARIUM
Dalea Wrightii Gray R Barneby 66
Type: Parosela Warnockii Tharp + Barkley
FAB 4-15-44
128 &
HERBARIUM of The UNIVERSITY OF TEXAS
No.
Parosela wrightii (A. Gray) Vail
Locality Stockton - Sheffield
Date 6-3-40 Coll. B. C. Tharp
University of Texas - Austin (LL, TEX)
00371383

Figure 2. Holotype of *Dalea wrightii* var. *warnockiii* (= *Parosela warnockii*) (Pecos Co.Texas).

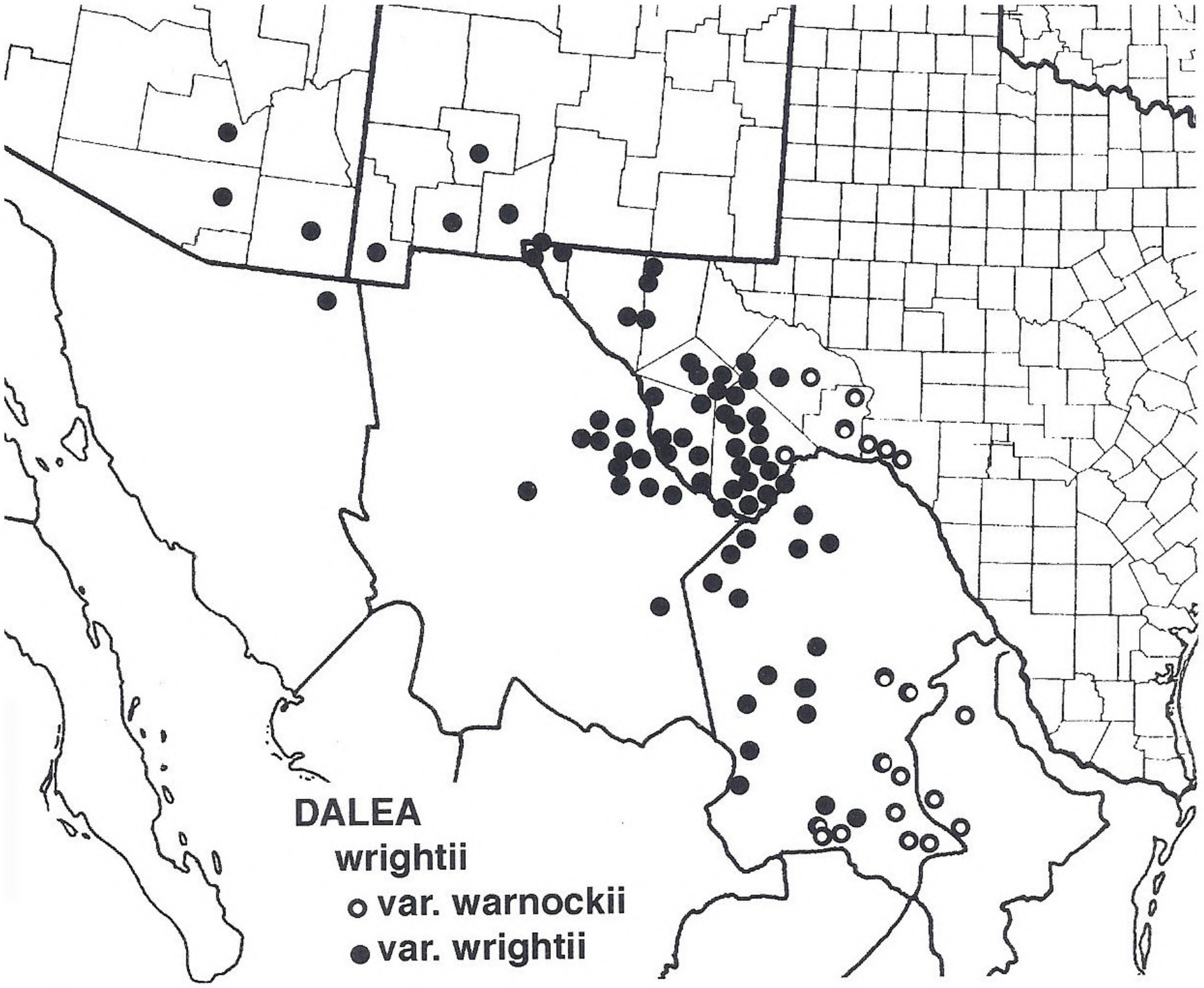

Figure 3. Distribution of the two varieties of *Dalea wrightii*.